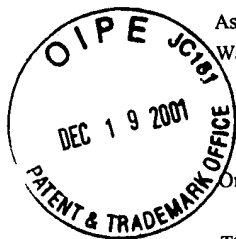


I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to:

PATENT
Attorney Docket No.: 020031-000810US

Assistant Commissioner for Patents
Washington, D.C. 20231



On December 7, 2001

TOWNSEND and TOWNSEND and CREW LLP

By: Debra A DeBello
Debra Ann DeBello

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

John G.K. Williams

Application No.: 09/876,374

Filed: June 6, 2001

For: CHARGE-SWITCH
NUCLEOTIDES

Examiner: Unassigned

Art Unit: Unassigned

INFORMATION DISCLOSURE
STATEMENT UNDER 37 CFR §1.97
§1.98

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

The references cited on attached form PTO/SB/08A and PTO/SB/08B are being called to the attention of the Examiner. Copies of the references are enclosed. It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

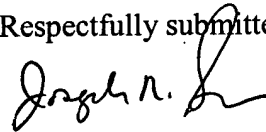
As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no

RECEIVED
DEC 20 2001
TECH CENTER 1600/2900

representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

Applicant believes that no fee is required for submission of this statement, since it is being submitted prior to the first Office Action. However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,



Joseph R. Snyder

TOWNSEND and TOWNSEND and CREW LLP
Two Embarcadero Center, 8th Floor
San Francisco, California 94111-3834
Tel: 925-472-5000
Fax: 925- 472-5015
JSIw

Please type a plus sign (+) inside this box

PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet **1** of **2**

Complete if Known

Application Number	09/876,374
Filing Date	June 6, 2001
First Named Inventor	Williams, John G.K.
Group Art Unit	unknown
Examiner Name	unknown
Attorney Docket Number	020031-000810US

U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
	AA					
	AB					
	AC					
	AD					
	AE					
	AF					
	AG					
	AH					
	AI					
	AJ					
	AK					
	AL					
	AM					
	AN					
	AO					
	AP					
	AQ					
	AR					
	AS					
	AT					

RECEIVED
 DEC 20 2001
 TECH CENTER 1600/2900

FOREIGN PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office ³	Number ⁴	Kind Code ⁵ (if known)				
	AU	WIPO	WO 98/28440		PYROQUENCING	07-02-1998		
	AV							
	AW							
	AX							
	AY							

Examiner
Signature

Date
Considered

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

WC 9032398 v1

Please type a plus sign (+) inside this box

PTO/SB/08B (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449B/PTO

DEC 19 2001

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet

2

of

2

Complete if Known

Application Number	09/876,374
Filing Date	June 6, 2001
First Named Inventor	Williams, John G.K.
Group Art Unit	unknown
Examiner Name	unknown
Attorney Docket Number	020031-000810US

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	AZ	TYAGI ET AL. Molecular Beacons: Probes that fluoresce upon Hybridization. <i>Nature Biotechnology</i> , March 1996, Vol 14, Page 303-308.	
	AAA	FU ET AL. A DNA Sequencing Strategy that Requires only Five Bases of Known Terminal Sequence for Priming. <i>Proc. Natl. Acad. Sci. USA</i> , October 1995, Vol. 92, Pages 10162-10166.	
	ABB		
	ACC		
	ADD		
	AEE		
	AFF		
	AGG		
	AHH		
	AII		
	AJJ		

RECEIVED
DEC 20 2001
TECH CEN ER 1600/2900

Examiner
Signature

Date
Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.
WC 9032398 v1

Please type a plus sign (+) inside this box

DEC 19 2001

PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 2 of 8

Complete if Known

Application Number	09/876,374
Filing Date	June 6, 2001
First Named Inventor	Williams, John G.K.
Group Art Unit	
Examiner Name	
Attorney Docket Number	020031-000810US

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ²
		Office ³	Number ⁴	Kind Code ⁵ (if known)				
	AZ	WO	00/70073		Korlach <i>et al.</i>	11/23/2000		
	BA	WO	00/58507		Kleneman	10/05/2000		
	BB	WO	00/06770		Balasubramanian <i>et al.</i>	02/10/2000		
	BC	WO	00/27521		Balasubramanian <i>et al.</i>	05/18/2000		

RECEIVED

DEC 20 2001

TECH CEN, IN 1000/2900

Examiner
Signature

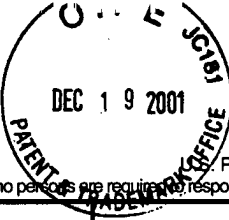
Date
Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231
WC 9000140 v2

Please type a plus sign (+) inside this box ☐



PTO/SB/08B (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 3 of 8

Complete if Known

Application Number	09/876,374
Filing Date	June 6, 2001
First Named Inventor	Williams, John G.K.
Group Art Unit	
Examiner Name	
Attorney Docket Number	020031-000810US

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	BD	Agrawal <i>et al.</i> , "Site-Specific Functionalization of Oligodeoxynucleotides For Non-Radioactive Labelling," <i>Tetrahedron Letters</i> , 31:1543-1546 (1990)	
	BE	Ambrose <i>et al.</i> , "Single-Molecule Detection With Total Internal Reflection Excitation: Comparing Signal-to-Background and Total Signals in Different Geometries," <i>Cytometry</i> , 36:224-231 (1999)	
	BF	Araki <i>et al.</i> , "Allosteric Regulation of a Ribozyme Activity Through Ligand-Induced Conformational Change," <i>Nucleic Acids Res.</i> , 26:3379-3384 (1998)	
	BG	Armstrong <i>et al.</i> , "Interaction of Substrate Analogues with <i>Escherichia coli</i> DNA-Dependent RNA Polymerase," <i>Eur. J. Biochem.</i> , 70:33-38 (1976)	
	BH	Asanov <i>et al.</i> , "Regenerable Biosensor Platform: A Total Internal Reflection Fluorescence Cell with Electrochemical Control," <i>Anal. Chem.</i> , 70:1156-1163 (1998)	
	BI	Bergstrom <i>et al.</i> , "Palladium-Mediated Coupling between Organic Disulfides and Nucleic Acid Constituents," <i>JACS</i> , 111:374-375 (1989)	
	BJ	Bonnaffe <i>et al.</i> , "Potential Lipophilic Nucleotide Prodrugs: Synthesis, Hydrolysis, and Antiretroviral Activity of AZT and d4T Acyl Nucleotides," <i>J. Org. Chem.</i> , 61:895-902 (1996)	
	BK	Castro <i>et al.</i> , "Single-Molecule Detection of Specific Nucleic Acid Sequences in Unamplified Genomic DNA," <i>Anal. Chem.</i> , 69:3915-3920 (1997)	
	BL	Church <i>et al.</i> , "Multiplex DNA Sequencing," <i>Science</i> , 240:185-188 (1988)	
	BM	Davis <i>et al.</i> , "Rapid DNA Sequencing Based Upon Single Molecule Detection," <i>Genomics</i> , 8(1):1-7 (1991)	
	BN	Eckstein <i>et al.</i> , "Phosphate Analogs for the Study of DNA Polymerases," <i>Methods Enzymology</i> , 262:189-217 (1995)	
	BO	Edman <i>et al.</i> , "Conformational transitions monitored for single molecules in solution," <i>Proc. Natl. Acad. Sci. USA</i> , 93:6710-6715 (1996)	
	BP	Fleischmann <i>et al.</i> , "Whole-Genome Random Sequencing and Assembly of <i>Haemophilus influenzae</i> Rd," <i>Science</i> , 269:496-511 (1995)	
	BQ	Garcia, "Determination of Ion Permeability by Fluorescence Quenching," <i>Meth. Enzymol.</i> , 207:501-511 (1992)	

TECH CENTER 1600/2900

DEC 20 2001

RECEIVED

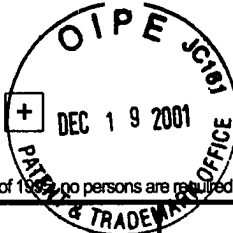
Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.
WC 9000140 v2

Please type a plus sign (+) inside this box



PTO/SB/08B (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Complete if Known

Application Number	09/876,374
Filing Date	June 6, 2001
First Named Inventor	Williams, John G.K.
Group Art Unit	
Examiner Name	
Attorney Docket Number	020031-000810US

Sheet 4 of 8

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	BR	Gebeyehu <i>et al.</i> , "Novel biotinylated nucleotide - analogs for labeling and colorimetric detection of DNA," <i>Nucleic Acids Research</i> , 15:4513-4535 (1987)	
	BS	Gibson <i>et al.</i> , "Synthesis and application of derivatizable oligonucleotides," <i>Nucleic Acids Research</i> , 15: 6455-6467(1987)	
	BT	Giusti <i>et al.</i> , "Synthesis and Characterization of 5'-Fluorescent-dye-labeled Oligonucleotides," <i>PCR Methods and Applications</i> , 2: 223-227 (1993)	
	BU	Goody <i>et al.</i> , "The Enzymatic Synthesis of Thiophosphate Analogs of Nucleotides," <i>Biochem. Biophys. Acta.</i> , 276:155-161 (1972)	
	BV	Grachev <i>et al.</i> , "ATP γ -Anilidate; A Substrate of DNA-Dependent RNA-Polymerase of <i>Escherichia Coli</i> ," <i>FEBS Lett.</i> , 49:163-166 (1974)	
	BW	Grachev <i>et al.</i> , "Studies on the functional topography of <i>Escherichia coli</i> RNA polymerase," <i>Eur. J. Biochem.</i> , 163:113-121 (1987)	
	BX	Griffin <i>et al.</i> , "Specific Covalent Labeling of Recombinant Protein Molecules Inside Live Cells," <i>Science</i> , 281:269-272 (1998)	
	BY	Gupta <i>et al.</i> , "A general method for the synthesis of 3'-sulfhydryl and phosphate group containing oligonucleotides," <i>Nucleic Acids Research</i> , 19:3019-3025 (1991)	
	BZ	Gyllensten <i>et al.</i> , "PCR-based HLA Class II Typing," <i>PCR Methods and Applications</i> , 1: 91-98 (1991)	
	CA	Haralambidis <i>et al.</i> , "Preparation of base-modified nucleosides suitable for non-radioactive label attachment and their incorporation into synthetic oligodeoxyribonucleotides," <i>Nucleic Acids Research</i> , 15: 4856-4876 (1987)	
	CB	Hobbs, "Palladium-Catalyzed Synthesis of Alkynylamino Nucleosides. A Universal Linker for Nucleic Acids," <i>J. Org. Chem.</i> , 54: 3420-3422 (1989)	
	CC	Hunkapiller <i>et al.</i> , "Large-Scale and Automated DNA Sequence Determination," <i>Science</i> , 254: 59-67 (1991)	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231. WC 9000140 v2

RECEIVED
 DEC 20 2001
 TECH CENTER 1600

Please type a plus sign (+) inside this box

DEC 19 2001

PTO/SB/08B (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 5 of 8

Complete if Known

Application Number	09/876,374
Filing Date	June 6, 2001
First Named Inventor	Williams, John G.K.
Group Art Unit	
Examiner Name	
Attorney Docket Number	020031-000810US

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	CD	Hyman, "A New Method of Sequencing DNA," <i>Analytical Biochemistry</i> , 174:423-436 (1988)	
	CE	Jett <i>et al.</i> , "High-Speed DNA Sequencing: An Approach Based Upon Fluorescence Detection of Single Molecules," <i>J. Biomol. Struct. Dyn.</i> , 7:301-309 (1989)	
	CF	Kadokura, M. <i>et al.</i> , "Efficient Synthesis of γ -Methyl-Capped Guanosine 5'-Triphosphate as a 5'-Terminal Unique Structure of U6 RNA via a New Triphosphate Bond Formation Involving Activation of Methyl Phosphorimidazolidate Using ZnCl ₂ as a Catalyst in DMF under Anhydrous Conditions," <i>Tetrahedron Letters</i> , 38:8359-8362 (1997)	
	CG	Kinjo <i>et al.</i> , "Ultrasensitive hybridization analysis using fluorescence correlation spectroscopy," <i>Nucleic Acids Res.</i> , 23:1795-1799 (1995)	
	CH	Köster <i>et al.</i> , "A strategy for rapid and efficient DNA sequencing by mass spectrometry," <i>Nature Biotechnology</i> , 14:1123-1128 (1996)	
	CI	Kreimeyer <i>et al.</i> , "Transmembrane Transport of Adenosine 5'-Triphosphate Using a Lipophilic Cholesterol Derivative," <i>Angew. Chem. Int. Ed.</i> , 37:2853-2855 (1998)	
	CJ	Kreimeyer <i>et al.</i> , "Synthesis of Acylphosphates of Purine Ribonucleosides," <i>Tetrahedron Letters</i> , 37:8739-8742 (1006)	
	CK	Laws <i>et al.</i> , "Fluorescence Quenching Studies: Analysis of Nonlinear Stern - Volmer Data," <i>Meth. Enzymol.</i> , 210:448-463 (1992)	
	CL	Li <i>et al.</i> , "Design, Synthesis, and Spectroscopic Properties of Peptide-Bridged Fluorescence Energy-Transfer Cassettes," <i>Bioconjugate Chem.</i> , 10:241-245 (1999)	
	CM	Luo <i>et al.</i> , "Fluorous Mixture Synthesis: A Fluorous-Tagging Strategy for the Synthesis and Separation of Mixtures of Organic Compounds," <i>Science</i> , 291:1766-769 (2001)	
	CN	Marshall, "Rules for the visible absorption spectra of halogenated Fluorescein dyes," <i>Histochemical J.</i> , 7:299-303 (1975)	
	CO	Maxam <i>et al.</i> , "A new method for sequencing DNA," <i>Proc. Natl. Acad. Sci. USA</i> , 74: 560-564 (1977)	

Examiner Signature

Date Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

WC 9000140 v2

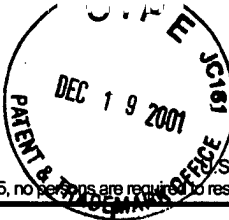
RECEIVED

TECH CENTER 60/2900

DEC 20 2001

Please type a plus sign (+) inside this box

+



PTO/SB/08B (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet **6** of **8**

Complete if Known

Application Number	09/876,374
Filing Date	June 6, 2001
First Named Inventor	Williams, John G.K.
Group Art Unit	
Examiner Name	
Attorney Docket Number	020031-000810US

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	CP	Narasimhan <i>et al.</i> , "p-Benzoquinone activation of metal oxide electrodes for attachment of enzymes," <i>Enzyme Microb. Technol.</i> , 7:283-286 (1985)	
	CQ	Nelson <i>et al.</i> , "Bifunctional oligonucleotide probes synthesized using a novel CPG support are able to detect single base pair mutations," <i>Nucleic Acids Research</i> , 17: 7187-7194 (1989)	
	CR	Nie <i>et al.</i> , "Probing Individual Molecules with Confocal Fluorescence Microscopy," <i>Science</i> 266:1018-1021 (1994)	
	CS	Nie <i>et al.</i> , "Real-Time Detection of Single Molecules in Solution by Confocal Fluorescence Microscopy," <i>Anal. Chem.</i> 67:2849-2837 (1995)	
	CT	Paris <i>et al.</i> , "Probing DNA sequences in solution with a monomer - excimer fluorescence color change," <i>Nucleic Acids Res.</i> , 26:3789-2393 (1998)	
	CU	Ronaghi <i>et al.</i> , "Sequencing Method Based on Real-Time Pyrophosphate," <i>Science</i> , 281:363-365 (1998)	
	CV	Sanger <i>et al.</i> , "DNA sequencing with chain-terminating inhibitors," <i>Proc. Natl. Acad. Sci. USA</i> , 74: 5463-5467 (1977)	
	CW	Sato <i>et al.</i> , "Bimane conjugates of 5-halogenouridylic acids as fluorogenic substrates for phosphodiesterase I," <i>J. Chem. Research (S)</i> , 1:390-391 (1994)	
	CX	Schecker <i>et al.</i> , "Flow-based continuous DNA sequencing via single molecule detection of enzymatically cleaved fluorescent nucleotides," <i>Proc. SPIE-Int. Soc. Opt. Eng.</i> 2386:4-12 (1995)	
	CY	Schmidt <i>et al.</i> , "Imaging of single molecule diffusion," <i>Proc. Natl. Acad. Sci. USA</i> 93, 2926-2929 (1996)	
	CZ	Service, "Borrowing from biology to power the petite", <i>Science</i> , 283:27 (1999)	
	DA	Smagowicz <i>et al.</i> , "Properties of P ³ Esters of Nucleoside Triphosphates as Substrates for RNA Polymerase from <i>Escherichia coli</i> ," <i>Biochem.</i> , 20:5538-5546 (1981)	

Examiner
Signature

Date
Considered

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

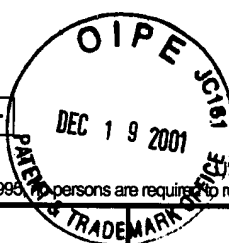
¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.
WC 9000140 v2

RECEIVED
DEC 20 2001
TECH CENTER 1600/280

Please type a plus sign (+) inside this box →

+



PTO/SB/08B (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet **7** of **8**

Complete if Known

Application Number	09/876,374
Filing Date	June 6, 2001
First Named Inventor	Williams, John G.K.
Group Art Unit	
Examiner Name	
Attorney Docket Number	020031-000810US

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	DB	Sproat <i>et al.</i> , "The synthesis of protected 5'-mercapto-2', 5'-dideoxyribonucleoside-3'-O-phosphoramidites; uses of 5'-mercapto-oligodeoxyribonucleotides," <i>Nucleic Acids Research</i> , 15:4837-4849 (1987)	
	DC	Steitz, "A mechanism for all polymerases," <i>Nature</i> , 391:231-232 (1998)	
	DD	Suto <i>et al.</i> , "Synthesis of γ-phosphate-linked Nucleoside Affinity Chromatography Resins For Protein Purification, Including Ribonucleoside Triphosphate Reductase," <i>Nucleosides & Nucleotides</i> , 17(8):1453-1471 (1998)	
	DE	Sverdlov <i>et al.</i> , "Derivatives of Guanosine Triphosphate-photoreactive Substrates of <i>Escherichia Coli</i> RNA Polymerase," <i>Elsevier/North-Holland Biomedical Press</i> , 112:296-298 (1980)	
	DF	Tokunaga <i>et al.</i> , "Single molecule imaging of fluorophores and enzymatic reactions achieved by objective-type total internal reflection fluorescence microscopy," <i>Biochem. and Biophys. Res. Comm.</i> , 235:47-53 (1997)	
	DG	Tyagi <i>et al.</i> , "Multicolor molecular beacons for allele discrimination," <i>Nature Biotechnol.</i> , 16:49-53 (1998)	
	DH	Velculescu <i>et al.</i> , "Serial Analysis of Gene Expression," <i>Science</i> , 270:484-487 (1995)	
	DI	Walker <i>et al.</i> , "Synthesis and Properties of Caged Nucleotides," <i>Methods in Enzymology</i> , 172:288-301 (1989)	
	DJ	Wang <i>et al.</i> , "Design and Synthesis of New Fluorogenic HIV Protease Substrates Based On Resonance Energy Transfer," <i>Tetrahedron Lett.</i> , 31:6493-6496 (1990)	
	DK	Weissleder <i>et al.</i> , "In vivo imaging of tumors with protease-activated near-infrared fluorescent probes," <i>Nature Biotechnol.</i> , 17:375-378 (1999)	
	DL	Wu <i>et al.</i> , "Synthesis and Properties of Adenosine-5'-triphosphoro-γ-1-(5-sulfonic acid)naphthyl Ethylamidate: A Fluorescent Nucleotide Substrate for DNA-Dependent RNA Polymerase from <i>Escherichia coli</i> ," <i>Arch. Biochem. Biophys.</i> , 246:564-567 (1986)	

Examiner Signature

Date Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.
WC 9000140 v2

TECH CENTER 1600/2910

DEC 20 2001

RECEIVED

Please type a plus sign (+) inside this box →

+

PTO/SB/08B (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet **8** of **8**

Complete if Known

Application Number	09/876,374
Filing Date	June 6, 2001
First Named Inventor	Williams, John G.K.
Group Art Unit	
Examiner Name	
Attorney Docket Number	020031-000810US

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	DM	Wu <i>et al.</i> , "An allosteric synthetic DNA," <i>Nucleic Acids Res.</i> , 1512-1516 (1999)	
	DN	Xu <i>et al.</i> , "Long-Range Electrostatic Trapping of Single-Protein Molecules at a Liquid-Solid Interface," <i>Science</i> , 281:1650-1653 (1998)	
	DO	Yarbrough <i>et al.</i> , "Synthesis and properties of fluorescent nucleotide substrates for DNA-dependent RNA polymerases," <i>JBC</i> , 254:12069-12073 (1979)	
	DP	Yarbrough <i>et al.</i> , "Stacking Interactions in Fluorescent Nucleotide Analogs Containing 1-Aminonaphthalene-5-Sulfonate at the Phosphoryl Terminus," <i>JBC</i> , 255:9907-9911 (1980)	
	DQ	Yarbrough <i>et al.</i> , "Binding of Fluorescent Analogs of GRP to the Exchangeable Nucleotide Binding Site of Tubulin," <i>JBC</i> , 256:112-117 (1981)	
	DR	Zuckermann <i>et al.</i> , "Efficient methods for attachment of thiol specific probes to the 3'-ends of synthetic oligodeoxyribonucleotides," <i>Nucleic Acids Research</i> , 15: 5305-5321 (1987)	
	DS	Livak <i>et al.</i> , "Oligonucleotides with Fluorescent Dyes at Opposite Ends Provide a Quenched Probe System Useful for Detecting PCR Product and Nucleic Acid Hybridization," <i>PCR Methods and Applications</i> , Cold Spring Harbor Laboratory Press., 4:357-362 (1995)	
	DT	Hunkapiller <i>et al.</i> , "Large-Scale and Automated DNA Sequence Determination," <i>Science</i> , 254:59-67 (1991)	
	DU	Griffin, <i>et al.</i> , "Specific Covalent Labeling of Recombinant Protein Molecules Inside Live Cells," <i>Science</i> , 281:269-272 (1998)	

WC 9000140 v2

Examiner
Signature

Date
Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

WC 9000140 v2

RECEIVED
DEC 2 2001
TECH CENTER 1600 2200